Reservoir Lands Guideline

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Introduction

The Reservoir Lands Guideline addresses management and use of land surrounding Alberta Environment's reservoirs. Section 92 of the *Water Act* gives the department the power to manage department-owned land. This Guideline provides government departments, municipalities, developers, lot buyers, and the general public, with tools that will assist all parties in resolving environmental issues associated with development and/or activities adjacent to Alberta Environment's reservoirs.

For the purpose of this Guideline, reservoir right-of-way, access right-of-way, and bed and shore ("reservoir lands"), are lands required for the operation, maintenance, access, and environmental mitigation of Alberta Environment's reservoirs. Adjacent property owners and the general public often misunderstand the use and purpose of these lands. "Adjacent lands" refers to land surrounding reservoir land that is usually privately owned. Proponents are people who are proposing developments and/or activities on reservoir or adjacent lands.

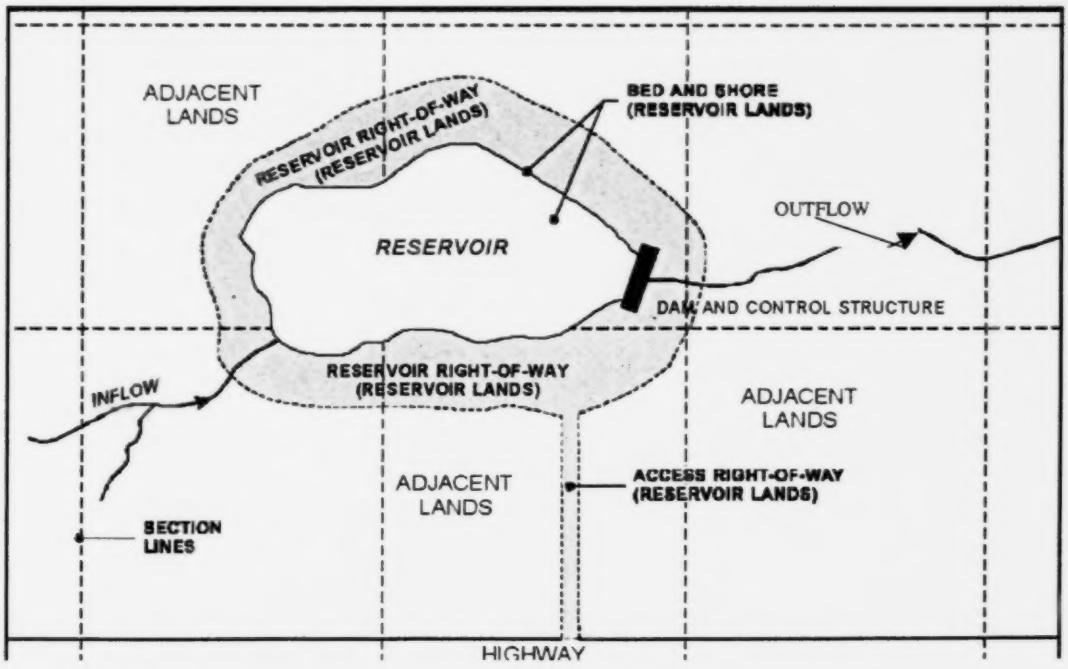

Diagram Showing Typical Reservoir Lands and Adjacent Lands

Reservoir lands are often desirable for recreational development or grazing purposes. Any unauthorized development on reservoir lands has the potential to have an adverse effect on the water body, on reservoir operations, and/or on environmental mitigation programs. Alberta Environment is responsible for approving any developments and/or activities on reservoir lands. The local municipality is responsible for approving any proposed subdivision or development on adjacent (privately owned) lands.

Guideline Goal

The intent of this Guideline is to keep the reservoir lands free of any obstructions and unauthorized structures and to ensure that any development on reservoir or adjacent lands does not compromise water supply, public safety, public enjoyment, or environmental mitigation programs.

Purpose of Reservoirs

Alberta Environment is responsible for a number of on-stream and off stream water supply reservoirs. These reservoirs store water during runoff periods for use during other times of the year and provide a degree of flood control. Reservoir water is used to supply the needs of municipalities, industrial users, hydro-power generation, and the farming community. It is also used to provide support to the aquatic and riparian environment downstream of the reservoir.

Reservoirs have unique operational and maintenance characteristics compared to natural lakes. Unlike lakes, reservoirs may have extreme water level fluctuations and therefore a high potential for shoreline erosion and instability. Due to seasonal demands on these reservoirs, water levels are not always suitable for recreational or aesthetic purposes.

Purpose of Reservoir Lands

Alberta Environment requires a certain amount of land around a reservoir. This area is often referred to as the reservoir right-of-way or buffer zone. This land serves a number of purposes including providing unrestricted access for staff to perform operation and maintenance activities, ensuring major flood levels will not impact private development, ensuring shoreline erosion will not encroach onto private land, providing a land base for mitigation programs, and public recreation.

The reservoir right-of-way is determined after consideration of geotechnical data on soil and slope stability, potential flood levels, and mitigation requirements. Generally, the criteria used to determine the amount of right-of-way is the top-of-dam contour elevation with a minimum distance of 30 metres from the reservoir full supply level. Where the top-of-dam contour elevation falls across a slope, additional land is acquired to ensure stability.

Authority

The following Acts provide the government with the necessary legislative tools to maintain a reservoir for its intended purpose.

- *Environmental Protection and Enhancement Act*
- *Municipal Government Act*
- *Federal Fisheries Act*
- *Provincial Parks Act*
- *Public Lands Act*
- *Safety Codes Act*
- *Water Act*

Public Access and Land Use

When requested, and subject to Section 92 of the *Water Act* (see appendix), the department may provide the public with access to and use of the reservoir and reservoir lands.

Unauthorized Structures on the Reservoir Lands

Any structures constructed without prior written approval will be deemed to be an unauthorized use of the reservoir lands. The person(s) responsible for the unauthorized structure will be required to remove the structures from the reservoir lands. If the person(s) responsible for the unauthorized structure refuses to remove the structure, the department will take necessary actions under the *Water Act* to ensure the structure is removed.

Requirements for an Application for an Authorized Encumbrance on Reservoir Lands

All structures on reservoir lands must be approved by prior written consent from Alberta Environment. The proponent must apply to Alberta Environment for an approval prior to the commencement of any activity or works on reservoir lands. Also, the proponent must check with the local municipality to determine whether a development permit or other municipal approval is required. Not all applications for activities or works are approved.

- The proponent must provide all details of the proposed construction and/or land use, including a construction schedule for all work proposed on reservoir lands. The schedule must outline construction start and completion dates of all proposed facilities and construction methods. Department approval for structures affecting the bed and shore within the reservoir lands is considered under regulations pertaining to the *Public Lands Act, Water Act*, and *Federal Fisheries Act*.

- The proponent may be required, at their expense, to undertake a geotechnical study by a professional engineer to determine the effects of the proposed development activities on shoreline stability and/or seepage of harmful substances into the reservoir.

- The proponent may be required, at their expense, to undertake an environmental impact assessment under the *Alberta Environmental Protection and Enhancement Act*. In addition to other impacts, the assessment must address the potential effects of such a development on the operations of the reservoir, effects on the quality of water in the reservoir, and effects on environmental mitigation programs.

- If the geotechnical or environmental studies result in the identification of any potential impacts, the proponent, at their expense, must propose actions to be carried out to mitigate the impact to the satisfaction of Alberta Environment. If the impact cannot be mitigated to the satisfaction of Alberta Environment, the proposed development will not be approved.

- Location of utilities within reservoir lands, or on adjacent Crown land must be approved by the director of Water Management Operations, Alberta Environment.

Approval Holder Requirements

For the purposes of this guideline, once a facility or development on reservoir lands is approved, the proponent is then referred to as an approval holder.

- The approval holder must maintain all approved facilities or improvements within the reservoir lands in a diligent and proper manner to the satisfaction of Alberta Environment.

- The approval holder must conduct all activities within the reservoir lands in a diligent and proper manner to the satisfaction of Alberta Environment.

- Should an approval holder cease to operate or maintain any approved facility or improvement within the reservoir lands, the department will take action under the *Water Act* for all works to be removed by the approval holder, at the approval holder's expense, and to the satisfaction of the director of Water Management operations, Alberta Environment.

- Alberta Environment staff or its agents may enter the reservoir lands at any time, for the purpose of examining the reservoir lands or reservoir infrastructure, and to undertake operation and/or maintenance work. The approval holder will not have any claim on Alberta Environment for any inconvenience nor for any loss of business caused by such entry or work performed.

Proposed Development on Adjacent Lands (private/freehold land)

It is important that Alberta Environment and the municipalities work in a close and cooperative manner to resolve issues arising from developments that may affect the operation of the reservoir.

The municipality should refer subdivision or development applications, any proposed amendments to statutory plans, or land use bylaws on adjacent lands to Alberta Environment for review and comment.

The prime function of these reservoirs is water supply, and as a result, a stable water level cannot be guaranteed. Due to fluctuating reservoir levels there may be potential for flooding of surrounding lands, bank erosion, or bank failure. It is critical that any development on adjacent lands does not impact the operations or maintenance of, or access to the reservoir. Anyone proposing development on adjacent lands should assess the risk, as should the responsible local authority, during its subdivision or development review process.

- Where appropriate, environmental reserves should be obtained in accordance with the *Municipal Government Act*, to ensure that lands subject to flooding, instability, or erosion remain in a natural state.

- It may be beneficial to locate municipal reserve parcels adjacent to environmental reserve parcels to create larger public open space areas, and/or to maintain a buffer between the water and private development.

- The proponent should install a fence on the boundary of the freehold property and the reserve, to restrict vehicle traffic accessing the reservoir lands and to mark the property line.

- All developments adjacent to the reservoir lands should take place on lands above the one in one hundred year flood level. In some cases, additional freeboard is recommended to compensate for wind set-up and wave run-up.

- Structures approved within the one in one hundred year flood level should be flood-proofed (see Alberta Environment's floodproofing brochure).

Where a proponent is proposing activities related to water resources or water infrastructure, they must first obtain the necessary approvals and/or licences as indicated below:

- The proponent must obtain approval under the *Environmental Protection and Enhancement Act*, and Sections 2 and 3 of the *Wastewater and Storm Drainage Regulation* for the construction and operation of storm drainage facilities. The applicant is responsible for providing proof of compliance.

- The proponent must obtain approval under the *Safety Codes Act*, *Private Sewage Disposal Regulation,* " Alberta Private Sewage Systems Standard of Practice 1999" for the construction and operation of private domestic sewage treatment and disposal facilities. The applicant is responsible for providing proof of compliance.

- The proponent must obtain approval under the *Environmental Protection and Enhancement Act*, Sections 1(2) and 3 of the *Potable Water Regulation* for the construction and operation of private waterworks systems. The applicant is responsible for providing proof of compliance.

- The proponent must obtain an approval and/or licence under Sections 36 and 49 of the *Water Act* for the diversion and use of water from the reservoir or from other water bodies.

APPENDIX - Water Act

Use of land administered by Minister

92(1) *The Director may, subject to the regulations, by order with respect to public land that is under the administration of the Minister that is related to or used in connection with a works or undertaking in which the Government has a property interest or that is related to an approval, preliminary certificate or licence issued to the Government,*

(a) permit, restrict, prohibit or impose any conditions on

(i) the use of any land or water for any purpose by a person, including but not limited to use by a person's animals,

(ii) the use of any reservoir or part of any reservoir,

(iii) the use, speed, direction of travel, stopping, leaving or parking of any vehicle or thing on any land or reservoir,

(iv) the erection of signs or devices on land, and

(v) any nuisance or noise on land,

and

(b) seize, remove or detain, or direct an owner or operator of a vehicle or thing to remove, any vehicle or thing parked or left in contravention of the regulations, if the vehicle or thing is located on land or a reservoir under the administration of the Minister.

(2) *A person, other than the owner or operator, who seizes, removes or detains a vehicle or thing under subsection (1)(b) must provide a justice with an affidavit describing the vehicle or thing and the reason for the seizure, removal or detention, and describing the disposition of the vehicle or thing.*

(3) *The Director or the owner of a vehicle or thing seized, removed or detained under subsection (1)(b) may make an application to a justice for an order respecting the disposition of it and the justice must*

(a) *order that the application be stayed and be dealt with pursuant to section 150, or*

(b) *if section 150 is not applicable, make an order that the thing seized, removed or detained*

(i) be confiscated to the Crown in right of Alberta, or

(ii) be returned to the person who is entitled to it.

Note: If there is any discrepancy between the above definition and the *Water Act* definition, the definition in the Water Act shall prevail.